

The Corps of Royal Canadian Electrical and Mechanical Engineers

A Short History of RCEME in the Second World War

By

Lieutenant Colonel W.G. Hamilton



The RCEME Heritage Archives



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Editor's Note

This EME historical reprint was written by Lieutenant Colonel W.G. Hamilton at the request of Colonel R.A. Campbell when a Corps history was being considered in 1958. The background to the task is noted in the author's introduction.

The introduction also establishes the origin of the RCEME Operational Manual.

The text was scanned and OCR'd by Lieutenant-Colonel (Retired) L.L. Hellemans.

Doug Knight

February 2010

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Background

This is the text of a demi-official letter from Lieutenant Colonel Hamilton, Command EME at Headquarters, Central Command, to Colonel RA Campbell, Director, Electrical and Mechanical Engineering at Army Headquarters on 5 November 1958.

From Lt-Col WG Hamilton

5 November 1958

Dear 

Reference is made to our conversation concerning a RCEME Corps history. I have some information which I am certain that no one else can supply.

Attached is a comprehensive record of RCEME during the Second World War, which should be helpful to anyone compiling the history of the Corps. The story behind this paper dates back to 1948 when Brigadier Bishop asked me to quickly compile an operational manual. This I did by gleaning the works of others who had gone before, files, etc., and information that I had myself. After great effort, I produced what I considered was a notable volume. Just at that time I was appointed AQMG and DEME was expecting to move. I tried unsuccessfully to get Joe to go over it with me, but he was too busy to spare the time. To get something out in a hurry, Joe reprinted the REME Manual and added a Canadian section with examples of orders, etc., plus a brief historical background. This document was called the Operational Manual RCEME 1948. I remember that one of my old 3rd Canadian Infantry Division operational orders was included. There is a copy of it at this headquarters, but there should be several in DEME, because it was the predecessor to the present general section of the EME Manual.

In regard to Chapter XIII (Dieppe Operations), two of the five RCEME men who went on this raid and one of the two who returned came from my workshop. As soon as Pte McDonald returned to my unit, I wrote down briefly on one page his story - a short but interesting statement, limited in scope, but to my knowledge the only RCEME eye-witness to this sad affair. I have it here if anyone is interested. [This document has not been found – ed].

Shortly after the end of the war, while still in Europe, all RCEME units were asked to produce a short history related to the campaign in north-west Europe. [These have been published separately as *A Collection of RCEME Unit Histories in North-west Europe* – ed]

At one time (around 1948) filing cabinets in DEME, under Herb Popkin's care, contained at least four drawers of war diary extracts, records, various statements etc. [These are now in the EME Regimental Archives – ed]

I am pressed for time these days and have not checked or edited the attached, but shall leave this job to the historian. I am certain that this paper will provide a good foundation on which to build the history of our Corps, at least, during the Second World War.

Best regards,



A Short History of The Corps of Royal Canadian Electrical and Mechanical Engineers in the Second World War

Introduction

At the outbreak of hostilities in September 1939, the responsibility for the repair and maintenance of electrical and mechanical equipment in the Canadian Army was shared by the Corps of Royal Canadian Engineers, the Royal Canadian Army Service Corps, and the Engineering Branch of the Royal Canadian Ordnance Corps. Indeed at that time, other Corps were forced through lack of repair facilities to set up their own workshops.

The Engineering Branch of the (RCOC (E)) carried out repairs to equipment at the direction of the Director of Ordnance Service (DOS) who received technical advice from the senior engineering officer on his staff. The DOS, therefore, exercised complete control over all phases of the repair organization.

In the British Army, the Royal Army Ordnance Corps (RAOC (E)) repair organization was not proving satisfactory. Factors contributing to this were as follows:

- a. The rapid mechanization brought with it an immense volume of maintenance and repair work, requiring a constantly expanding engineering and maintenance organization.
- b. The introduction into the service of a wide range of new types of equipment, on which there had been no previous experience, required the institution of a complicated and highly technical training programme.
- c. The necessity for avoiding duplication and multiplication of reserves of skilled men and special equipment. The economical use of scarce resources depended upon pooling them as much as possible.
- d. The expansion of the “E” side of Ordnance merited recognition by the granting of administrative privileges and responsibilities, within the Corps, to Ordnance Mechanical Engineer (OME) officers on an equal basis with non-technical officers.
- e. Due to its later development and its need for totally different types of officers and enlisted personnel, the engineering side of Ordnance as distinct from the stores side had been the junior partner in the union.
- f. The administration of the “E” side of Ordnance was of a technical nature and therefore should have been the responsibility of the “E” section. This indirect control was found not to be conducive to efficiency.
- g. Due to the increased mechanization of the forces, it was found necessary to include maintenance engineering representation in the higher councils of the army.
- h. In 1940 in France the RAOC (E) echelon system of repair was inadequate. Failure was due primarily to two causes – in the first place, the lack of military training in the Corps and secondly, too rigid an adherence to sound civilian engineering principles resulting in evacuation of casualties rather than repair and of course, an unnecessarily long period of turnaround before reissue to user arms of equipment that was in short supply.

On the basis of the foregoing it became evident that it was necessary to reorganize the repair and maintenance services of the Army. Several committees were therefore formed to study the various problems. One particular committee under the chairmanship of Sir William Beveridge was established to study and report on the conservation of skilled technical manpower in the armed services in relationship to the needs of industry. Following the tabling of this and other reports, a decision was taken to form the Corps of Royal Electrical and Mechanical Engineers (REME) effective 1 October 1942, with two primary objects:

- a. To provide more satisfactory direction and coordination of the maintenance and repair services.
- b. To achieve a more economical use of skilled manpower.

The nucleus of the new REME Corps was found principally from the repair elements of the Royal Engineers, Royal Signals, Royal Army Service Corps and RAOC. The need of the Corps for engineers and technical personnel was so great that large numbers of officers and men were transferred from the army at large and recruited from industry.

The Canadians closely watched and studied the development and operation of this new Corps. Based on these studies and observations it was decided to regroup the maintenance and repair services of the Canadian Army. In January 1943, the Canadian Army Overseas adopted the general REME pattern. The formation of the separate Corps of Royal Canadian Electrical and Mechanical Engineers (RCEME) was deferred until May 1944, by which time it was clearly established that the British organization was founded along sound lines. The actual conversion in May 1944 required no major reorganization in the Canadian Army Overseas, as REME establishments and terminology had already been adopted. RCEME assumed responsibility for the repair and maintenance of electrical and mechanical equipment in the army. On formation, RCEME was made fully combatant and, in addition to their technical duties, RCEME officers were responsible for administration and management of their men in the same way as officers of other corps.

As a point of interest it may be stated that this organization was an improvement on the German repair organization, but generally deployed farther forward and incorporated much more flexibility, in anticipation of a war which produced not only lightning advances by highly mechanized forces, but also calculated withdrawals and unexpected reverses.

The development and organization of the Corps within the Canadian Army is detailed by formation in following chapters of this volume.

Chapter I – Canadian Military Headquarters

As it was realized at the outbreak of war that the United Kingdom must be considered as a base of operations for Dominion forces, an advance component of National Defence Headquarters was quickly formed and Canadian Military Headquarters arrived and began immediately to function in London, England.

At this time, there existed at CMHQ an Ordnance Mechanical Engineer with a small staff who supplied technical advice to the Director of Ordnance Services.

As generally outlined in the introduction, this organization eventually became the Deputy Director of Mechanical Engineering Branch, with a DDME and staff of administrative and technical officers trained in all types of electrical and mechanical equipment in the army. The functions of this RCEME organization are as follows:

- a. Liaison between its counterpart at National Defence Headquarters, British War Office, American Formations, and Canadian Forces overseas.
- b. Operation of static RCEME installations in the U.K.
- c. Assisting in formation of new field units, control of flow of reinforcements, and coordination of reinforcement training in the U.K.
- d. Drafting technical data, distribution of Overseas Engineering Regulations, etc.

It is pointed out that CMHQ did NOT “command” Canadian field units/formations, but rather expressed the wishes of the Canadian Government to the War Office re the handling of Canadian troops in the field. Base and reinforcement units in the U.K., however, came under direct command of CMHQ.

Chapter II – 1st Canadian Infantry Division

Under the original RCOC (E) organization, mobilization for a 1st Divisional Workshop, which was called 2nd Army Field Workshop, commenced in September 1939.

This unit embodied the complete RCOC (E) repair facilities for the division and was composed of workshops, light aid detachments, and recovery sections all in the one unit.

At Headquarters, 1st Canadian Infantry Division there was a Deputy Assistant Director of Ordnance Services (Engineering) (DADOS (E)) who coordinated RCOC (E) repair and maintenance for the division and was technical assistant to the Assistant Director of Ordnance Services.

On arrival in the United Kingdom in late 1939, the 1st Canadian Division went under command of 7 British Corps. The workshop commenced operations, and technical training was carried out under British instruction. It immediately became obvious that the widely scattered locations of light aid detachments made workshop administrative control very difficult, and early in 1940 it was decided to place the LADs under command of the units they served, but controlled by the workshop in technical matters.

In the fall of 1940 it became apparent that, due to differences in equipment and repair methods, Canadian training under British supervision was not a total success.

At this time, 1 Canadian Corps was formed and 1 Canadian Infantry Division came under its command.

Further activities of repair organizations within this division will be covered under 1 Canadian Corps.

Chapter III – 2nd Canadian Infantry Division

Mobilization of the 1st Army Field Workshop to serve the 2nd Canadian Infantry Division also commenced in September 1939. In actual fact this workshop was to have proceeded overseas with 1 Canadian Infantry Division as can be seen by the name, but was not mobilized in time. This resulted in the 2nd Canadian Division Workshop organizations going with 1 Canadian Division.

After some delay, 2 Canadian Infantry Division with 1 Army Field Workshop arrived in U.K. in the winter of 1940, and went under command of 1 Canadian Corps. Workshop operation and training commenced immediately.

Chapter IV – 3rd Canadian Infantry Division

Mobilization of a repair organization for 3rd Canadian Infantry Division commenced in September 1939, and eventually workshops arrived in England in the fall of 1941.

Since the 1st and 2nd Canadian Divisions enjoyed priority for personnel, semi-trained personnel were constantly being transferred to these divisions from 3rd Division, which considerably slowed complete formation of units. However, this longer period of organization and training eventually proved advantageous.

Organizational changes (which are covered under 1 Canadian Corps), brought about by the experience of Canadian units in the United Kingdom, were made in Canada. Hence, 3 Canadian Infantry Division workshops arrived in England and went under command 1 Canadian Corps with their organization completely in line with those units already there.

Chapter V – 1 Canadian Army Tank Brigade

The development of armour and armoured warfare by the Germans, and the consequent early German victories in the late war demanded the immediate expansion of armour within the Canadian Forces.

As a point of interest, the lessons learned in the latter part of World War I were not capitalized on to any great extent and, as a result, our armoured equipment at the outbreak of World War II was, to say the least, primitive.

It took some time to develop and acquire armour, but late in 1940, mobilization of a Special Armoured Brigade began. In early spring of 1941, the workshop organization for this brigade mobilized.

Training in Canada was extremely difficult because of the scarcity of tanks and workshop equipment. However, when this workshop arrived in the United Kingdom and came under command 1 Canadian Corps in the summer of 1941, conditions improved. British equipment and tools became immediately available and training really got under way.

A DADOS (E) at brigade headquarters coordinated the efforts of the RCOC (E) organization.

Chapter VI – 1 Canadian Corps

As mentioned previously, 1 Canadian Corps was formed in the fall of 1940. An Assistant Director of Ordnance Services (Engineering) (ADOS(E)) was provided as corps headquarters representative of the RCOC (E).

The formation of a corps resulted in the mobilization and movement overseas of corps troops and the consequent expansion of services within the corps. The workload on the workshop organizations of 1st Canadian Infantry Division and 2nd Canadian Infantry Division almost doubled.

This was a highly unsatisfactory arrangement and it became apparent that separate corps troops repair facilities must be provided. In the summer of 1941, a reorganization of RCOC (E) took place.

Each army field workshop was split into a divisional workshop and a non-division workshop. This required the addition of a few personnel to each of the newly formed workshops.

The divisional workshops now carried out divisional repair and the non-divisional workshops took over corps work. This gave the whole repair organization much greater flexibility.

The divisional workshops were split into four components, a headquarters group and three brigade groups. This again provided greater mobility and resulted in much better service to the brigades.

At this time armoured units were being mobilized and 1 Canadian Army Tank Brigade and 1 Canadian Army Tank Brigade Workshop had arrived in the United Kingdom. The need for a corps tank repair workshop arose. This workshop organization was mobilized in the summer of 1941 and arrived in the U.K. during the fall of the same year. The corps tank workshop was then attached to the army tank brigade workshop for training. This workshop was of similar nature to the non-divisional workshops, but heavy on AFV repair personnel and equipment.

The split of army field workshops did not affect the armoured brigade workshop organization.

By the fall of 1941, 1 Canadian Corps consisting of 1, 2, and 3 Canadian Infantry Divisions and 1 Army Tank Brigade and commenced training on a sound corps basis from a repair viewpoint.

Chapter VII – 1 Canadian Base Workshop

Along with the formation of a complete Canadian Corps in the United Kingdom, the reinforcement organization of the Canadian Forces expanded.

Canadian Military Headquarters and 1 Canadian Corps realized in early 1941 that the repair load of the Canadian Forces in the United Kingdom was rapidly increasing beyond the repair facilities provided within 1 Canadian Corps and the light aid detachments being formed for reinforcement units. Equipment requiring repair was piling up in returned vehicle parks and deteriorating for lack of attention.

It was decided to form a base workshop, under command of CMHQ, to carry out all fourth echelon work and overflow from field workshops, as well as heavy repairs for reinforcement units.

This demand was passed to National Defence Headquarters who immediately designed the organization and tapped every available source for technical men and equipment.

At considerable expense to units already mobilizing in Canada, 1 Canadian Ordnance Base Workshop was formed in the fall of 1941 and proceeded to the United Kingdom in 1942. This unit was completely static and went into permanent quarters in the base reinforcement area in the fall of 1942. High priority on elaborate equipment and top speed work by Royal Canadian Engineers produced an extremely well-equipped unit designed to function along the lines of civilian production.

Chapter VIII – 5th Canadian Armoured Division

Organization of workshops for this division commenced in the fall of 1940. For a year, training took place in Canada, during which time many trained tradesmen were withdrawn to other units as priority required.

The decision to change the 4th Canadian Infantry Division, which was also mobilizing, into an armoured division caused considerable confusion in the formation of 5th Canadian Armoured Division. This confusion was due to an unexpected switchover of equipment, personnel, etc., and several changes in unit titles, all of which conflicted with the requirements of 5th Canadian Armoured Division.

However, workshop organizations arrived in the United Kingdom in the fall of 1941, and for a period came under command of CMHQ, pending the formation of First Canadian Army Headquarters early in 1942.

As an armoured division, the divisional headquarters RCOC (E) representatives were an ADOS (E) and a Major (Ordnance Mechanical Engineer).

By this time training facilities were expanding in the United Kingdom and personnel were dispatched on courses in various training establishments.

In the spring of 1942, 5th Canadian Armoured Division came under command of 1 Canadian Army Headquarters.

Chapter IX – 4th Canadian Armoured Division

The workshops for this division as an infantry division commenced organizing in the summer of 1940, and for a time had many obstacles to overcome before completion.

From time to time the workshops were required to recruit and form light aid detachments for immediate dispatch overseas. Reorganization to conform with overseas changes took place.

Then the decision to change this division to armour caused a complete reorganization and training schedules were altered accordingly. Trained tradesmen were now continually being dispatched to other units proceeding overseas. In April 1942, the complete organizational changes were made and by fall of 1942, the workshops proceeded overseas, where they came under command of the First Canadian Army. This division was allowed very little acclimatizing time, and the workshops were on unit battle schemes within two months. Picked personnel were sent on advance training courses. This division was slow in reaching the well-trained stage, and it was actually eleven months before it participated in a general scheme, which gave the workshops plenty of time to function smoothly.

Chapter X – 2nd Canadian Armoured Brigade

Early in 1942, it was decided to form a 2nd Army Tank Brigade to support 2 Canadian Corps which was to be formed. 2nd Canadian Army Tank Brigade Workshop began to mobilize in the spring and training commenced immediately. This unit was supposed to move overseas in late 1942, but after several false warning orders, it arrived in the United Kingdom in early summer of 1943, to come under command of 2 Canadian Corps.

Some personnel were immediately sent to corps and brigade workshops to get practical experience. This workshop was quite well trained in Canada, and as a result was able to cope with their repair load in a very short time.

In the fall of 1943, the brigade was placed under direct command of 3rd Canadian Infantry Division to train and prepare for the North-west Europe assault.

Chapter XI – 2 Canadian Corps

As the 4th and 5th Divisions began to arrive in the United Kingdom, the need for a second corps arose and 2 Canadian Corps was finally formed in January 1943. Certain repair organizations which had been under control of army and divisions became corps troops. Thus, 2 Canadian Corps when formed was composed of 4th Armoured Division, 5th Armoured Division, 2nd Canadian Army Tank Brigade and Corps Troops.

This changed in the summer of 1943, when 1 Canadian Corps was reconstituted to proceed to Italy resulting in the organization of the two corps as follows:

1 Canadian Corps

1st Canadian Infantry Division
5th Canadian Armoured Division
1st Canadian Armoured Brigade
Corps Troops

2 Canadian Corps

2nd Canadian Infantry Division
3rd Canadian Infantry Division
4th Canadian Armoured Division
2nd Canadian Armoured Brigade
Corps Troops

Chapter XII – First Canadian Army

In the spring of 1942, as it became apparent that the intention was to field two separate Canadian Corps, it was proposed to set up a First Canadian Army. As a matter of record, this proposal met with considerable opposition from War Office, whose contention was, that due to the limited supply of reinforcements and the basic nature of the Canadian soldier, it would be better to have Canadian divisions operate within British corps, or singly on special tasks.

However, our decision was accepted and, for the first time in history, a Canadian Army was formed in early 1942. This was an army in name only, with many gaps to be filled.

Army Troops repair organizations as well as 3rd echelon repair facilities for corps began to build up.

At First Canadian Army Headquarters, a Deputy Director of Ordnance Services (Engineering) (DDOS (E)) and staff were organized to coordinate RCOC (E) throughout First Canadian Army.

By 1943, the army RCOC (E) requirements were practically complete, and consisted of repair facilities for two complete corps, army troops, and base reinforcement units. About this time the change to REME pattern took place though personnel remained Ordnance. War establishments were reviewed and revised to conform exactly with the British REME setup, although repair equipment was of Canadian pattern and more adequate on the whole. In other words, the mechanical engineer side of the Royal Canadian Ordnance Corps, RCOC (E) assumed all the names of appointments held by British REME with RCOC included in brackets with unit titles to indicate that personnel were still Ordnance. It was not until May 1944 that the Corps of Royal Canadian Electrical and Mechanical Engineers was authorized.

By 1943, three complete recovery companies had been mobilized within the First Canadian Army. These companies were organized and equipped under army command and then one was placed under command of each corps, leaving the third, which was designed as a line of communication recovery Company to serve army troops and L of C.

Briefly the RCEME (RCOC) repair organization in the First Canadian Army in 1943 was as follows:

1st Echelon

Light Aid Detachments (one per Infantry Brigade, Armoured Regiment, RCA Regiment, Divisional Engineers, Divisional Signals, Infantry (Machine Gun) Support Battalion, and various Reinforcement Units in the United Kingdom).

Light Anti-Aircraft Workshop (One per LAA Regiment).

2nd Echelon

Infantry Brigade Workshops (One per Infantry Brigade)

Armoured Brigade Workshops (One per Armoured Brigade)

Corps Troops Workshop (One per Corps)

Army Troops Workshop (One per Army)

General Troops Workshop (Line of Communication Troops)

3rd Echelon

Infantry Troops Workshop (One per Infantry Division)

Armoured Troops Workshop (One per Armoured Division)

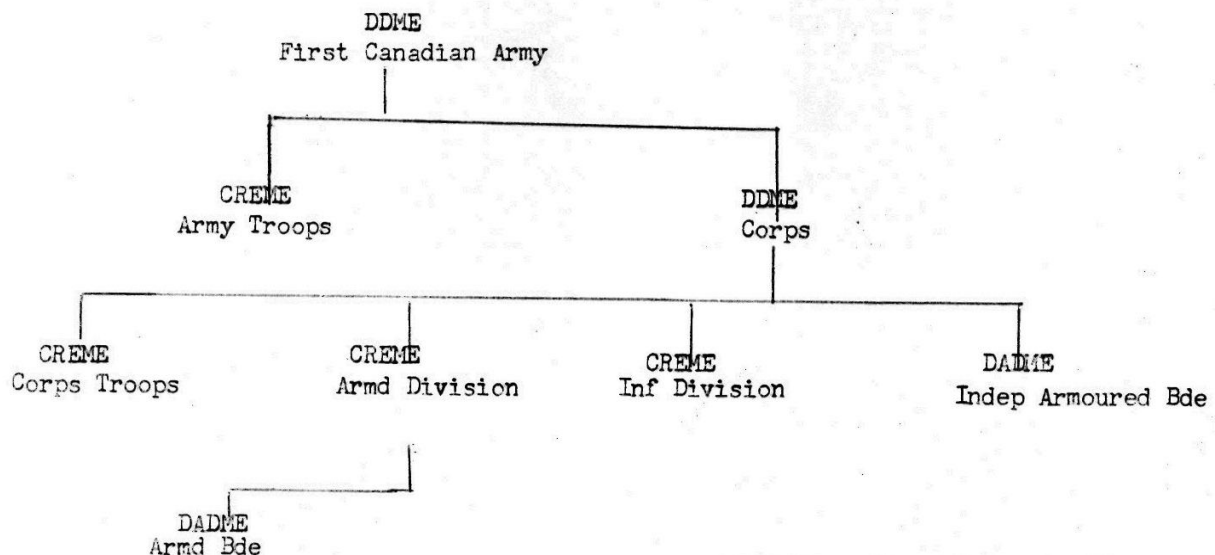
Tank Troops Workshop (One per Corps)

4th Echelon

Advance Base Workshops (One per Corps)

Base Workshops (One per Army)

In addition to the actual repair organization, the following administrative staffs were set up.



The above chart reflects those RCME (RCOC) staffs which actually commanded operationally and administratively repair organizations within formation.

In addition to the above, Ordnance Mechanical Engineers (Captains) were provided on the headquarters staffs of the following formations to act in an advisory capacity to formation commanders and carry out liaison with Commanders RCME.

- a. Headquarters Divisional Artillery
- b. Headquarters Divisional Signals
- c. Headquarters Infantry Brigade

- d. Headquarters Army Group Royal Artillery
- e. Headquarters Corps Artillery
- f. Headquarters Corps Signals.

In 1943, First Canadian Army came under command of 21 Army Group, and it was apparent that it would operate as such in North-west Europe, though it was to be composed of both British and Canadian Formations, since it was decided to send 1 Canadian Corps to Sicily and Italy. The First Canadian Army supplied 21 Army Group with a Canadian Section which included an ADME under DME 21 Army Group. This ADME was to supervise advance base workshops and line of communication repair installations, such as port workshops, which were being provided by the Canadian Army, and liaise with DDME First Canadian Army on 4th Echelon and L of C repair problems.

This completes the organizational History of RCOC (E), by this time accepted as RCEME (RCOC) within First Canadian Army.

It is pointed out that no attempt has been made to delve into various small repair and maintenance organizations which evolved out of special commitments which arose from time to time during this period.

Chapter XIII – Dieppe Operations

Early in 1942, the British War Office decided to dispatch a “reconnaissance in force” to France. The reasoning behind this assault has been the subject of a great deal of controversy by Canadians. In fact, it was nothing more than a strong raid to acquire “all the information necessary before launching operations on a much larger scale” as pointed out by Mr. Churchill in a September 1943 speech.

A special repair group, formed from 2nd Canadian Divisional Ordnance Workshop under Capt R. Johnson (later killed in Normandy) went to the Isle of Wight to prepare equipment for the Dieppe operations. It was initially intended to take some of this repair organization on the raid, but after several postponements, when the raiding party finally set out in August 1942, no repair or recovery facilities were included. However, the assault force did include five RCOC (E) armourers from 2nd Canadian Divisional Ordnance Workshop. Their task was to assist in bringing back captured German arms and equipment. This, they failed to do, because heavy enemy mortar and artillery fire prevented them from getting off the beaches. Five RCOC (E) men went on the raid—two returned to England!

With the exception of beach recovery pointers, RCOC (E) learned very little from this expedition.

Chapter XV – Sicilian Campaign

This campaign, designed to coincide with the completion of the North African Campaign, required that one infantry division and an independent armoured brigade be dispatched from the United Kingdom to be phased in with the move of other formations from the Eastern Mediterranean and the ports of French North Africa.

After an initial decision to send the 3rd British Infantry Division, plans were changed and it was decided to send the oldest Canadian formations overseas, 1st Canadian Infantry Division and 1st Canadian Armoured Brigade, on this campaign. The projected “write-off” of both Sicily and Italy was expected to be of short duration, and at this time it was anticipated that these Canadian formations would rejoin the First Canadian Army for the assault on North-west Europe. Thus the repair organizations of 1st Canadian Infantry Division and 1st Canadian Armoured Brigade, augmented by their 3rd line workshops, were destined for Sicily. Fourth echelon and line of communication repair and maintenance were entirely British responsibilities.

During the spring and early summer all hands were very busy modifying new equipment, waterproofing their own unit vehicles, and inspecting and instructing on other unit waterproofing. Training took place in Scotland. The complete switchover of the armoured brigade from Ram tanks to

Shermans gave the workshops a lot of hard work, and getting acquainted with an unfamiliar tank, and the 75-mm gun with which it was armed, was no easy task in the short time allowed.

The Canadian force came under command of the 30 British Corps of the famous British Eighth Army, and also served under 13 British Corps during this thirty-eight day campaign.

In the assault, beach recovery was carried out by a specially formed beach recovery group and recovery vehicles of light aid detachments, and valuable assistance was given to those units who had to land in up to six feet of water with “B” vehicles, although many units were fortunate enough to land dry shod. Due to the mountainous nature of the terrain, the use of vehicles was limited, and only one regiment of the armoured brigade was continuously in action with the division.

Good work was done in the early days, putting vehicles back on the road that had become casualties due to improper waterproofing and de-waterproofing. Much was learned about recovery under every imaginable difficulty. Second echelon repair organizations found themselves attempting second to fourth echelon repairs due to the shortage of transport caused by the sinking of three ships off North Africa.

The Canadians were removed from action on 6 August and remained on army reserve until the completion of the campaign on 17 August. During this period, workshops were quite busy catching up with the backlog and preparing for the attack on Italy itself.

Chapter XVI – Italian Campaign

Under command of 13 British Corps, 1st Canadian Infantry Division and 1st Canadian Armoured Brigade prepared for the attack on the mainland which took place on 3 September 1943. During this waiting period, activity on the part of RCEME was intense.

Then came the assault and the consequent advance by the Canadians over mountainous territory on a necessarily narrow front, which eventually carried them to the Sangro River and Hitler’s winter line by the end of November.

Certain phases of RCEME operations during this campaign were rather unique. Due to the rapidity of the advance on a narrow front, lines of communication were long and traffic was congested on roads that offered every imaginable pitfall to the unwary driver. These conditions resulted in a high rate of traffic casualties which pressed recovery facilities to their limit.

It must be borne in mind that, at this time, the planned North-west Europe assault was receiving top priorities on equipment, so that replacements in Italy were indeed scarce. Hence the job of RCEME workshops was considerably magnified. Stores officers were required to travel long distances to obtain vital spares.

The echelon system of repair fell apart to a certain extent, and the order of the day for RCEME was to lend all possible assistance to any allied unit in trouble, at any time or place.

It was found feasible to carry out repair of a second and third echelon nature on heavy equipment in situ using service crews from workshops. The impossibility of using transporters without dislocating traffic caused this departure from normal procedure. Due to the lack of adequate base facilities, the third echelon workshops were forced to do third and fourth echelon work at times.

The divisional artillery was usually largely concentrated, and it was found most economical to consolidate the armament sections of brigade workshops from time to time to handle heavy workloads resulting from large artillery concentrations laid down on the enemy.

Casualty reporting by the normal channels proved slow. A divisional recovery officer was appointed to coordinate recovery within the divisional boundaries. Patrolling of areas by RCEME patrols on a definite coverage scheme proved a useful innovation. In this way it was possible to overcome carelessness of units in reporting trouble, and better the chances of keeping abreast of repair loads.

In November 1943, it became fairly obvious that Hitler would make good his boast of a holding winter line in Italy. Tactically, it is still felt in many military circles that this would never have

happened but for the indecision and resultant delay of the assault on Italy, which resulted mainly from the secret negotiations taking place at the time of the fall of Sicily between General Eisenhower and Marshal Badoglio for the Italian surrender.

However, it was decided to have a Canadian Corps in Italy for the 1944 assault on the Hitler Line, and during November, the DDME 1 Canadian Corps arrived in Sicily and 5th Canadian Armoured Division workshops began to arrive in Naples.

5th Canadian Armoured Division arrived without heavy equipment and took over the tanks of a British armoured division which was moving to the United Kingdom.

This equipment had been in action a long time and was in poor condition. Re-equipping the division was a lengthy process and involved a lot of hard slugging for the workshops.

It was early 1944 before 1 Canadian Corps commenced operation in Italy. From this time to the end of the Italian Campaign for the Canadians when they moved to Holland during the winter of 1945, all RCEME units were heavily taxed and indeed the Corps won its spurs, so to speak, in this theatre.

The flexibility of the RCEME organization proved adequate in a type of warfare which was far removed from any until then encountered.

Chapter XVII – North-west European Campaign

The move of 1 Canadian Corps to Italy in 1943 left the Canadian Army heavy on certain organizations, but light on personnel. The newly constituted 2 Canadian Corps consisting of 2nd Canadian Infantry Division, 3rd Canadian Infantry Division, 4th Canadian Armoured Division, 2nd Canadian Armoured Brigade and Corps Troops began to prepare for the campaign in North-west Europe.

Needless to say, all RCEME workshops were busy carrying out modifications and putting equipment of all units in first class condition.

3rd Canadian Infantry Division, supported by 2nd Canadian Armoured Brigade, was selected as one of the three assaulting divisions on the British sector of the Normandy assault. These assault forces were given top priority, and special fittings to “B” vehicles, tires for beach operation, up-armouring and up-gunning of “A” vehicles, and preparation of recovery equipment and waterproofing kept RCEME workshops working at top speed until “D” Day.

As many RCEME personnel as possible were trained as waterproofing inspectors and instructors. The 3rd Canadian Infantry Division and 2nd Canadian Armoured Brigade carried out initial training under 1 Canadian Corps but, when it left for Italy, they passed under command of 1 British Corps under which they were to assault the beaches.

2nd Canadian Armoured Brigade switched over from Ram tanks to Shermans and, on short notice, RCEME were required to modify and put this equipment in shape for “D” day.

RCEME inspections were hampered by schemes and constant changing of equipment.

2 and 3 Canadian Recovery Companies were extremely busy in the spring of 1944 and up to “D” day, clearing casualties and back-loading surplus and damaged vehicles to returned vehicle parks.

LADs with 3rd Canadian Infantry Division and 2nd Canadian Armoured Brigade landed with their respective units from “D” day onwards. Twenty personnel from each of 7, 8, and 9 Canadian Infantry Brigade Workshops and 2 Canadian Armoured Brigade Workshop augmented 22 and 23 REME British Beach Recovery Sections which landed on “D” day. HQ RCEME, 3rd Canadian Infantry Division, landed on “D” day and “D + 1”. The first second line workshop to be phased in was that of 2nd Canadian Armoured Brigade on “D + 1”. 7 Canadian Infantry Brigade Workshop commenced its phasing-in on “D + 3”, to be closely followed by 8 and 9 Canadian Infantry Brigade Workshops. Actually, due to high seas, the landings fell behind schedule.

For many months, CREME, 3rd Canadian Infantry Division and staff had been making elaborate repair and recovery plans for the campaign. They bore fruit in the successful waterproofing, in the efficient recovery, and in the way repair organizations functioned with a minimum time lag after landing.

During the first days of the assault, “A” and “B” vehicle casualties were high, and the object of RCEME was to return these vehicles to service as quickly as possible. At one time DADME 2 Canadian Armoured Brigade counted 89 tank casualties on the battlefields. When recovered, many of these casualties still retained the bodies of the crew in various stages of decomposition. RCEME had to bury the dead and disinfect the tank before repair could be attempted. The brigadier commanding 2 Canadian Armoured Brigade congratulated the workshop on its tank repair work, because at that time, he was wholly dependent upon the workshop for tank replacements.

Permissive repair schedules in the assault and beachhead were rather useless. Repairs were limited by spares, available time and skill of personnel. Cannibalization was necessarily controlled and often two tanks, one with a damaged gun and the other with a holed final drive, were made into one serviceable fighting vehicle in short order.

The high military training standards attained by RCEME personnel stood them in good stead in those early days, when they were required to do their job and, at times, defend their locations as well as assist in mopping up action.

From 6 to 9 July 1944, DEME 2 Canadian Corps with CREME 2nd Canadian Infantry Division and CREME 2 Canadian Corps Troops and their workshops arrived in the beachhead.

CREME 2 Canadian Corps Troops was charged with the responsibility of setting up corps backloading points to which all vehicle and gun casualties beyond the repair of divisional second echelon workshops were backloaded.

Third echelon army troops workshops were now brought into play under temporary command of CREME Corps Troops.

On 23 July 1944, DDME First Canadian Army commenced operation and, by 31 July, had RCEME organizations of Army Troops, 2nd Canadian Infantry Division, 3rd Canadian Infantry Division, 4th Canadian Armoured Division, 2nd Canadian Armoured Brigade and Corps Troops as well as British formations under command.

In these early days RCEME were called upon to carry out modification and inspection programmes within critical time limits and these jobs were consistently completed on time. One such job was the conversion of 3rd Canadian Division “Priest” self-propelled artillery vehicles (which had just been replaced by 25-pounders) to armoured personnel carriers for the break-out of the Caen sector and Lieutenant-General G.G. Simonds’ novel plan of carrying infantry through the German gun screen. This involved removal of the guns and covering the gun apertures with plating.

However, this tremendous task was completed in time by third echelon workshops and the success of the operation in the subsequent break through to Falaise was secured.

During the operations in the Normandy beachhead and the breakout, advance workshop detachments from brigade workshops were used extensively, and became more or less permanent fixtures in the RCEME organizations. The general policy of carrying out repairs as close as possible to the fighting troops was adopted. RCEME organization throughout was fortunately well designed for the shifting of sections and even whole workshops to any point required as the workload in the broad picture demanded.

During the pursuit through France and Belgium to Holland in the fall of 1944, RCEME organizations spent most of their time on the move, and road recovery became the most important function. By October both 1 and 2 Canadian Advanced Base Workshops were in full operation between Brussels and Antwerp. Elements of 2 Canadian Advance Base Workshop had operated in Normandy, but now for the first time they came fully into play.

The period in the Nijmegen Salient during the winter of 1944-45 was, on the whole, comparatively quiet for RCEME workshops that now made an effort to catch up on the backlog of vehicle casualties incurred in the push north.

RCEME inspections of units were carried out in all formations, and modifications to equipment resulting from battle experiences were caught up.

As usual, the advance workshop detachment composed of the gun shop from 2 Canadian Corps Troops Workshop which serviced 2 Canadian AGRA was kept quite busy, since all corps artillery regiments continued to lay down sporadic fire on the enemy.

It may be said here that this advance workshop detachment had served from five to ten regiments of artillery constantly from Normandy on, and had at times carried out almost impossible tasks.

During this period of comparative quiet, local resources in Belgium and Holland were exploited to the fullest extent, with the most notable contributions by civilians being made in army troops workshops and advance base workshops.

Workshop locations were now excellent by comparison with the conditions in France. However, it was found that personnel did not carry out their work with the “drive” that was so evident under more difficult conditions in Normandy.

New equipment being issued to units at this stage was found to be in very poor shape. Accordingly, a workshop was allotted to the vehicle park supplying Canadian Army vehicles to ensure that vehicles coming forward were in good condition. CREME 2 Canadian Corps Troops set up an “ad hoc” light aid detachment with 2 Canadian Corps Ordnance to repair and direct into repair channels new equipment prior to issue to units.

The advance into Germany and its subsequent collapse was a certainty in early 1945. RCEME were charged with the immediate responsibility of investigating the German road transport situation and making plans to restore this situation to normal as quickly as possible in the months following the German collapse.

Accordingly, an ADME and staff of officers for this operation “Eclipse” were set up at First Canadian Army with their counterparts at formation levels. Intelligence placed at their disposal all information regarding industrial facilities in the area of Germany that it was proposed Canadian Forces were to occupy and planning went ahead.

In February 1945, 1 Canadian Corps arrived from Italy and the DDME First Canadian Army controlled all RCEME in First Canadian Army for the first time in the field.

The advance into Germany took place and immediately after its collapse on 7 May 1945, Canadian Forces began to withdraw to Holland, leaving the 2nd Canadian Infantry Division with its RCEME workshops to carry out “Eclipse” duties until the formation of the Canadian Occupational Division.

Canadian RCEME units in Holland began recovering German equipment to Eclipse dumps for disposal, and repairing Canadian equipment for resale or return to Canada.

Thus ended the operational role of RCEME in the field with the Canadian Forces. This new Corps had taken its place beside other Corps in the field and acquitted itself with distinction throughout the whole campaign.

Chapter XVIII – Canadian Occupational Force

Immediately after the surrender of Germany, the Canadian Government approved the formation of a Canadian Occupational Force to be called 3rd Canadian Infantry Division (CAOF).

This division commenced mobilization on 6 June 1945 in Holland. The RCEME organization for this division consisted of an infantry brigade workshop per brigade, an infantry troops workshop, a light aid detachment per brigade, divisional artillery, signals and engineers with two additional LADs for use with ancillary units which were not included in the normal divisional complement.

This Force moved to Germany on 9 July 1945 and took over from 2 Canadian Infantry Division.

CREME was charged with the responsibility of operating all German repair organizations in the occupation area and returning the civilian transport to normal. This work was mainly carried out by German tradesmen under the supervision of RCEME officers and NCOs.

As well as Canadian RCEME, CREME 3rd Canadian Infantry Division (CAOF) had under command several British REME workshops and LADs amounting to about one thousand additional personnel to supervise.

Aside from German repair programmes, RCEME activity was fairly normal and consisted mainly of repairing road casualties and recovery operation within the divisional area. Peacetime maintenance and inspection schedules were enforced.

The force operated in Germany until March 1946, when the policy of the Canadian Government changed and orders for disbandment of 3rd Canadian Infantry Division (CAOF) were received.

The division disbanded in a manner similar to that of the rest of the Canadian Army and almost all Canadians were out of Germany by early June 1946.

A RCEME servicing unit remained behind until August 1946 with 2 Canadian Ordnance Demobilization Depot to inspect, repair, and place in preservation returned equipment for resale to European countries or return to Canada.

Chapter XIX – Disbandment of RCEME Units

The return of units to Canada was approximately in the order of their arrival in the United Kingdom. Personnel on a point score system were accordingly posted to those units which were included in their point score bracket.

Personnel electing service in the Pacific were dispatched to Canada as quickly as possible and those electing service with the Canadian Occupational Force were posted to 3rd Canadian Infantry Division (CAOF) which commenced forming in Holland on 6 June 1945.

Before RCEME units disbanded they had to inspect, do light repairs, and preserve all equipment on charge the formations/units they served. As disbandment orders were received, backlog was backloaded to workshops with later disbandment dates. Completed equipments were then sent to returned vehicle parks and returned stores depots.

A RCEME servicing unit was formed to operate in Holland after the departure of the Canadian Forces. Its job was to inspect and repair all returned equipment before resale by War Assets to other countries, and to inspect, repair, and put in preservation that equipment which was being returned to Canada.

Recovery companies were very busy in Holland during the disbandment stage, backloading vehicles, carrying out road recovery, and maintaining traffic posts.

On the whole, disbandment was smooth, and by early November 1945, the last RCEME workshop in Holland was on its way home.